

This listing of claims will replace all prior versions, listings, of claims in the application:

Listing of Claims:

1 - 14. (cancelled)

15. (previously presented) A light-emitting device, comprising:
- a) a substrate;
 - b) a first electrically conductive layer forming an anode electrode layer on the substrate;
 - c) a hole transport layer on said anode electrode layer;
 - d) a layer of a light emissive material on said hole transport layer;
 - e) an electron transport layer comprising fullerenes located on said layer of a light emissive material;
 - f) a first interfacial layer located between said layer of light emissive material and said electron transport material, said first interfacial layer comprising organic molecules with a LUMO energy level of about 2eV to about 3eV and HOMO energy of about 5 eV to about 7eV located on said layer of light-emissive material;
 - g) a second electrically conductive layer forming a cathode electrode layer located on said electron transport layer; and
 - h) a second interfacial layer located between said electron transport layer and said second electrically conductive layer, said interfacial layer comprising a fluoride compound for providing an Ohmic contact between said cathode electrode layer and said fullerene layer,
- wherein the organic molecules in said first interfacial layer are selected from the group consisting of 4,4'-bis(carbazol-9-yl)-biphenyl; 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline; 1,3-Bis(5-(4-diphenylamino)phenyl)-1,3,4-oxadiazol-2-yl)benzene; 3,4,5-Triphenyl-1,2,4-triazole; 3-(Biphenyl-4-yl)-4-phenyl-5-tert-butylphenyl-1,2,4-triazole; 3,5-Bis(4-tert-butylphenyl)-4-phenyl-

[1,2,4]triazole; 2-(4-Biphenyl)-5-(4-tert-butylphenyl)-1,3,4-oxadiazole; 1,3-Bis[5-(4-(1,1-dimethylethyl)phenyl)-1,3,4-oxadiazol-2-yl]benzene; 1,4-Bis(5-(4-diphenylamino)phenyl-1,3,4-oxadiazol-2-yl)benzene; and 1,3,5-Tris[5-(4-(1,1-dimethylethyl)phenyl)-1,3,4-oxadiazol-2-yl]benzene.

16. (cancelled)

17. (previously presented) The light-emitting device of claim 15 wherein said hole transport layer is comprised of organic molecules which conduct holes.

18. (previously presented) The light-emitting device of claim 15 wherein said hole transport layer has a thickness in a range from about 1 nm to about 300 nm.

19. (previously presented) The light-emitting device according to claim 15 wherein said second electrically conductive layer forming a cathode electrode layer is selected from the group consisting of Al, Cr, Cu, Ag, Au, Ni, Fe, Ni, W, Mo, Co and alloys or metal mixtures.

20. (original) The light-emitting device of claim 19 wherein said alloy or mixture is a Mg:Ag or Li:Al alloy or mixture.

21. (cancelled)

22. (previously presented) The light-emitting device of claim 15 wherein said second interfacial layer comprising a fluoride compound has a thickness in a range from about 0.2 nm to about 10 nm.

23. (previously presented) The light-emitting device of claim 15 wherein said fluoride compound is an alkaline fluoride compound.

24. (original) The light-emitting device of claim 23 wherein said alkaline fluoride compound is lithium fluoride (LiF).
25. (previously presented) The light-emitting device of claim 15 wherein said fluoride compound is calcium fluoride (CaF₂).
26. (previously presented) The light-emitting device of claim 15 wherein said second electrically conductive layer forming a cathode electrode layer is aluminum (Al).
27. – 29. (cancelled)
30. (original) The light-emitting device of claim 15 wherein said fullerenes are selected from the group consisting of C60, C70 and combinations thereof.
31. (original) The light-emitting device of claim 15 wherein said electron transport layer includes an organic molecule or polymer which are electron conductors mixed with said fullerenes.
32. (original) The light-emitting device of claim 31 wherein said organic molecule is tris-(8-hydroxyquinoline) aluminum (Alq), and wherein said fullerenes are selected from the group consisting of C60, C70 and combinations thereof.
33. (original) The light-emitting device of claim 15 wherein said electron transport layer includes lithium fluoride (LiF) mixed with said fullerenes.
34. (original) The light-emitting device of claim 15 wherein said electron transport layer includes metal particles mixed with said fullerenes.
35. (original) The light-emitting device of claim 34 wherein said metal particles are silver metal particles.

36. (original) The light-emitting device of claim 15 wherein said electron transport layer has a thickness in a range from about 1 nm to about 300 nm.

37 - 40. (cancelled)

41. (previously presented) The light-emitting device of claim 15 wherein the first electrically conductive layer forming an anode electrode layer on the substrate is a high work function material.

42. (original) The light-emitting device of claim 41 wherein the high work function material is selected from the group consisting of ITO, SnO₂, Ni, Pt, Au, p⁺⁺ semiconductors including c-Si, a-Si, a-Si:H, and poly silicon.

43. (previously presented) The light-emitting device of claim 15 including a protective coating deposited on a top surface of the electrically conductive layer forming the cathode electrode.

44. (original) The light-emitting device of claim 43 wherein said protective coating is selected from the group consisting of dielectrics including oxides of Si and nitrides.

45. (previously presented) The light-emitting device of claim 43 wherein said protective coating is a fullerene layer.

46. (original) The light-emitting device of claim 15 including a power supply for applying a voltage across the anode electrode layer and the cathode electrode layer.

47 - 49. (cancelled)

50. (previously presented) The light-emitting device of claim 15 including an interfacial layer interposed between the electron transport layer and said electrically conductive layer forming a cathode electrode, said interfacial layer comprising a fluoride compound.

51. (previously presented) The light-emitting device of claim 15 including an interfacial layer interposed between the electron transport layer and said electrically conductive layer forming a cathode electrode, said interfacial layer comprising a low work function metal or alloy.

52. (previously presented) The light-emitting device of claim 51 wherein said low work function metal or alloy is selected from the group consisting of calcium (Ca), magnesium (Mg), and alloys of Mg:Ag and Li:Al.

53. (previously presented) The light-emitting device of claim 51 wherein said second electrically conductive layer forming a cathode electrode layer is aluminum.